Potential ARAR	Media	Questions for EPA
Drinking Water MCLs	Surface water	1. Would estimated surface water concentrations in the FS be compared directly to MCLs or would there be some allowance for conventional treatment of those waters in a hypothetical situation where they were withdrawn for drinking water use? 2. How should estimates of concentrations in the FS be integrated horizontally or vertically for comparison to these criteria? Would this follow the approach of the HHRA?
	TZW	1. Would estimated TZW concentrations in the FS be compared directly to MCLs or would there be some allowance for conventional treatment of those waters in a hypothetical situation where they were withdrawn for drinking water use? 2. Given that these comparisons will be made only in areas of contaminated groundwater discharge plumes (per EPA's previous verbal direction), what assumptions should be made about the effectiveness of upland groundwater source controls in the FS? Where will the information come from to support these assumptions? 3. Does EPA think that applying these criteria to TZW is consistent with approaches taken on other sediment sites? Can you provide examples? If not, does this represent a new approach or policy for EPA in general? 4. To what extent should FS estimated TZW concentrations consider how spatial capture zones affect exposures that would theoretically take place from water withdrawn from a constructible well (i.e., including application of MCLs at the tap/wellhead and including consideration of the entrainment of surface water through the TZW during such a withdrawal)?
	Deep Ground-water	1. Would estimated groundwater concentrations in the FS be compared directly to MCLs or would there be some allowance for conventional treatment of those waters in a hypothetical situation where they were withdrawn for drinking water use? 2. Given that these comparisons will be made only in areas of contaminated groundwater discharge plumes (per EPA's previous verbal direction), what assumptions should be made about the effectiveness of upland groundwater source controls in the FS? Where will the information come from to support these assumptions? 3. To what extent should FS estimated groundwater concentrations consider exposures that would theoretically take place from water withdrawn from a constructible well (i.e., at the tap/wellhead and including the entrainment of surface water or TZW during such a withdrawal)?
Bioaccumulation-based Water Quality Criteria (State and/or Federal)	Surface water	1. Using estimated surface water concentrations from FS evaluations of alternatives, over what areas and durations should the concentrations be estimated for comparison to the criteria? How are these areas and durations consistent with the derivation and promulgation of the ARAR? 2. Would EPA be willing to treat these as TBCs instead of ARARs? 3. Given that existing upstream and rainwater concentrations for some chemicals (e.g., PCBs) are well in excess of these criteria, what process and evaluation does EPA envision to conduct against these criteria. 4. What allowances would be made for background, upstream and/or ongoing upland source control levels in the application of these criteria to evaluations of sediment remedy effectiveness?
	TZW	1. Should comparison of TZW concentrations to these criteria account for the sediment organisms' actual exposure to TZW contaminants including ventilation of surface water into TZW? If not, why? 2. Does EPA think that applying these criteria to TZW is consistent with approaches taken on other sediment sites? Can you provide examples? If not, does this represent a new approach or policy for EPA in general? 3. How should FS estimated concentrations in TZW for remedial alternatives be compared to these criteria (i.e., size of area, upon discharge to the surface water, averaged over the biologically active zone, at the bottom of the biologically active zone, over what duration, etc.)?
Chronic Direct Toxicity Criteria (State or Federal)	Surface water	1. Does EPA intend to apply chronic water quality criteria to the evaluation of short term intermittent construction impacts in the FS? 2. If so, at what distance from the point of activity (e.g., dewater discharge, dredging, capping) should the FS evaluate expected water quality concentrations against the criteria? 3. Over what area would the estimated concentration have to be above the criteria for it to be considered an exceedance in an FS evaluation? 4. What allowances would be made for background, upstream and/or ongoing upland source control levels in the application of these criteria to evaluations of sediment remedy effectiveness?
	TZW	1. Should comparison of TZW concentrations to these criteria account for the sediment organisms' actual exposure to TZW contaminants

Potential ARAR	Media	Questions for EPA
		including ventilation of surface water into TZW? If not, why? 2. How should FS estimated concentrations in TZW for remedial alternatives be compared to these criteria (e.g., size of area, upon discharge to the surface water, averaged over the biologically active zone, at the bottom of the biologically active zone, over what duration, etc.)?
Acute Direct Toxicity Criteria (State or Federal)	Surface Water	1. Does EPA intend to apply acute water quality criteria to the evaluation of short term intermittent construction impacts in the FS? 2. At what distance from the point of activity (e.g., dewater discharge, dredging, capping) should the FS evaluate expected short term water quality concentrations against the criteria?

ARAR – Applicable or Relevant and Appropriate Requirement
BAZ – Biologically Active Zone
DEQ – Department of Environmental Quality, Oregon
EPA – Environmental Protection Agency
FS – Feasibility Study
HHRA – Human Health Risk Assessment
LWG – Lower Willamette Group
MCLs – Maximum Contaminant Levels
PRG – Preliminary Remediation Goal
PWP – Programmatic Work Plan
RAO – Remedial Action Objective
SOW – Statement of Work
TBC – To Be Considered
TMDL – Total Maximum Daily Load
TZW – Transition Zone Water